

CLAIMS

What is claimed as new and desired to be protected by Letters Patent of the United States is:

1. A method of analysis regarding at least one patent claim, comprising:
 - a) determining a correspondence of the portions of the at least one patent claim to the concept nodes of an ontology;
 - b) determining a correspondence of the portions of at least one instance to the concept nodes of the ontology; and
 - c) processing the determined correspondence of the portions of the at least one patent claim and the determined correspondence of the portions of the at least one instance.
2. The method of claim 1, wherein:
 - step a) includes completing a claim record for each of the at least one patent claim under study;
 - step b) includes completing an instance record for each of the at least one instance under study; and
 - step c) includes processing the completed claim records and the completed instance records.
3. The method of claim 2, wherein:

the claim record and the instance record are embodied in a computer-readable medium; and

step c) includes a computer executing a program to process the claim record and the instance record.
4. The method of claim 3, wherein:

step c) further includes the computer executing a program to process an index to instance records, by concept node, by concept node, based on at least one concept node indicated in at least one of the completed claim records.

5. The method of claim 2, wherein:

completing the claim record and completing the instance record includes indicating the concept node to which each portion of the corresponding claim and instance, respectively, corresponds; and

processing the completed claim records and the completed instance records includes determining a comparison of the concept nodes indicated by claim records to concept nodes indicated by instance records.

6. The method of claim 5, wherein:

determining a comparison includes determining whether there is a one to one correspondence between concept nodes in claim records and concept nodes in instance records.

7. The method of claim 6, wherein:

the comparison is among the concept nodes indicated by each of a plurality of ones of the instance records, respectively, and the concept nodes indicated by one claim record.

8. The method of claim 7, wherein:

the comparison includes considering the scope of the concepts corresponding to the concept nodes indicated by each instance record, respectively, relative to the scope of the concepts corresponding to the concept nodes indicated by the one claim record.

9. The method of claim 6, wherein:

the comparison is among the concept nodes indicated by each of a plurality of ones of the claim records, respectively, and the concept nodes indicated by one instance record.

10. The method of claim 6, wherein:

the comparison is among the concept nodes indicated by each of a plurality of ones of the claim records, respectively, and the concept nodes indicated by one instance record.

11. The method of claim 1, wherein:

step c) includes comparing the determined correspondence of the portions of the at least one patent claim to the determined correspondence of the portions of at least one instance.

12. The method of claim 11, wherein:

step c) includes processing the ontology to determine a relation between the scope of the concepts to which portions of the at least one patent claim correspond and the scope of the concepts to which respective portions of the least one instance correspond.

13. The method of claim 1, wherein:

a result of processing the determined correspondence of the portions of the at least one patent claim portions and the determined correspondence of the portions of the at least one instance includes a determination of whether the at least one instance infringes the at least one patent claim.

14. The method of claim 1, wherein:

the at least one instance is prior art to the at least one patent claim; and

a result of processing the determined correspondence of the portions of the at least one patent claim and the determined correspondence of the portions of the at least one instance includes a determination of whether the at least one instance renders the at least one patent claim invalid, if the at least one patent claim is in an issued patent, or unpatentable, if the at least one patent claim is not in an issued patent.

15. The method of claim 14, further comprising:

determining a correspondence of the portions of an embodiment to the concept nodes of the ontology; and

processing the determined correspondence of the embodiment portions and formulating the at least one patent claim based at least in part thereon.

16. The method of claim 15, wherein:

the formulated at least one patent claim is a first formulated at least one patent claim; and

the method further comprises

formulating a second at least one patent claim, based at least in part on the determination of whether the at least one prior art instance renders the first at least one patent claim unpatentable.

17. The method of claim 14, further comprising:

determining a correspondence of the portions of an embodiment to the concepts nodes of the ontology; and

processing the determined correspondence of the embodiment portions and formulating at least one patent claim based at least thereon and on the determined correspondence of the at least one prior art instance.

18. The method of claim 1, wherein:

the step of determining a correspondence of the portions of the at least one patent claim to the concept nodes of an ontology includes, for each of at least one of the portions, adding to the ontology a concept node to which that portion corresponds.

19. The method of claim 1, wherein:

the step of determining a correspondence of the portions of at least one instance to the concept nodes of the ontology includes, for each of at least one of the portions, adding to the ontology a concept node to which that portion corresponds.

20. The method of claim 1, wherein:

the step of determining a correspondence of the portions of the at least one patent claim to the concept nodes of an ontology includes, for each of at least one of the portions, adding to the ontology a concept node to which that portion corresponds; and

the step of determining a correspondence of the portions of at least one instance to the concept nodes of the ontology includes, for each of at least one of the portions, adding to the ontology a concept node to which that portion corresponds.

21. A system usable for patent analysis, comprising:

an instance record database embodied in a tangible medium, the instance record database comprising a plurality of instance records,

wherein

each instance record is associated with a separate one of a plurality of instances,
and

each instance record includes a plurality of portion entries, each portion entry
configured to hold an indication of a concept node in an ontology.

22. The architecture of claim 21, further comprising:

ontology storage holding the ontology.

23. The architecture of claim 21, further comprising:

document storage, holding at least one document, wherein the at least one document
embodies the plurality of instances;

wherein each instance record includes at least one link record configured to hold a link
to the separate one of the plurality of instances embodied in the at least one document.

24. The architecture of claim 23, wherein:

the at least one link included which each instance record is configured to hold includes a
plurality of links, wherein each link is a link to a separate portion of the instance with which the
instance record is associated.

25. The architecture of claim 23, further comprising:

an instance record index comprising a plurality of entries,

wherein, each entry of the instance record index

corresponds to a separate concept node in the ontology, and

is configured to hold an indication of the instance records holding an indication of the concept node to which that entry of the instance record corresponds.